

Transilvania University of Braşov, Romania

Study program: Industrial Environmental Engineering and Protection

Faculty: Product Design and Environment
 Study period: 4 years (bachelor)
 Academic year structure: 2 semesters (14 weeks per semester)
 Examination sessions (two): winter session (January/February)
 summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

1st Year

No. crt.	Course	Code	1 st Semester					2 nd Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	DIAM01	2	3			5					
02	Chemistry I	DICH01	2		2		5					
03	Computer programming and programming languages	DIPC01	1		2		4					
04	Descriptive Geometry	DIGD01	2		1		4					
05	Technical drawing and infographics I	DIDT01	2		2		4					
06	Materials science and engineering	DISM01	3		2		5					
07	Pollution sources, processes and products	DIPC02						1		1		3
08	Technical drawing and infographics II	DIDT02						1		2		3
09	Mechanics	DIMC02						3	2			4
10	Physics	DIF02						2	1	1		4
11	Linear Algebra, Analytical and Differential geometry	DIAGAD						2	2			4
12	Chemistry II	CHIMAN						3		2		6
13	General Economy	DIDCO2						1	1			3
14	English Language (O1)	LS01	1	1			3					
	French Language (O1)											
	German Language (O1)											
	Spanish Language (O1)											
15	English Language (O2)	LS02						1	1			3
	French Language (O2)											
	German Language (O2)											
	Spanish Language (O2)											
16	Physical training	EF01/EF02		1			1		1			1
Total			13	5	9		31	14	8	6		31
Total hours/week			27					28				

2nd Year

No. crt.	Course	Code	3 rd Semester					4 th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Special Mathematics	DIMS03	2	2			4					
02	Databases and statistics	DIBDPS	1		1		3					
03	Strength of materials	DIRM03	3	1	1		4					
04	Chemistry III	SMCO03	3		3		6					
05	Thermodynamics	SMCF03	2		2		6					
06	Applied informatics	DIM3D						1		1		3
07	Sustainable development	DIDD04						2		1		3
08	Transfer phenomena I (Energy transfer)	DITMT						2		1		3
09	Electrochemistry and corrosion	ECHC04						3	1	2		4
10	Mechanical engineering	DIOM04						3		2		4
11	Ecotoxicology	SMCA04						2		1		4
12	Fluid mechanics	DIMF04						2		1		3
13	Practical activity (90 hours)	PRO4						90				4
14	Electrotechnics (O3)	DIEA03	2		2		5					
	Electronics (O3)	MAE04										
15	English Language (O4)	LS03	1	1			2					
	French Language (O4)											
	German Language (O4)											
	Spanish Language (O4)											
16	English Language (O5)	LS04						1	1			2
	French Language (O5)											
	German Language (O5)											
	Spanish Language (O5)											
17	Physical training	EF03/EF04		1			1		1			1
Total			14	5	9		31	16	3	9		31
Total hours/week			28					28				

3rd Year

No. crt.	Course	Code	5 th Semester					6 th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Product ecological design I	BPP05	2			2	4					
02	Environmental chemistry	SMCM5	2		2		4					
03	The science of soil and soil depollution processes	SSPDS06	2		1		3					
04	Information technology	DIMEF5	2		3		4					
05	Instrumental analysis	SMAI05	2		3		5					
06	Pollutants' separation methods	SMSEP05	1		1		3					
07	Communication	DIDC05	1	1			3					
08	Meteorology and climatology	MET05	1		2		4					
09	Chemometry	SMCH05						1		1		2

10	Transfer phenomena II (Mass transfer)	SMFT05						2	1		1	4
11	Ecology	ECOIPMI						1		1		3
12	Product ecological design II	DIDC06						2	1			2
13	Project - Product ecological design II	DIDCP06									1	2
14	Analysis and synthesis of the technological processes	ASPT						2		3		3
15	Technologies and equipment for (waste)water treatment I	TRATAP						2		2		4
16	Practical activity (90 hours)	PR06						90				4
17	Chemistry of colloids and surfaces (O6)	SMSP6						2		2		3
	Interface processes (O6)	INT06										
18	Air treatment technologies and equipment (O7)	PEPA06						2		1		3
	Indoor air quality	TEHRCCC06										
Total			13	1	12	2	30	14	2	10	2	30
Total hours/week			28					28				

4thYear

No. crt.	Course	Code	7 th Semester					8 th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Product ecological design III	DP07	2			2	4					
02	Energy systems based on biomass	BIO07	2		2		4					
03	Technologies and equipment for (waste)water treatment II	APE07	2		2		5					
04	Data aquisition, monitoring and diagnosis techniques for environmental quality assessment	MONIT07	2		2		5					
05	Technological and biotechnological processes automation	COM07	2		2		4					
06	Engineering of the environmental depollution process	DEPOL07	2	1			3					
07	Engineering of the environmental depollution process - Project	DEPOLP07				2	2					
08	Environment and society	MSOC07	1	2			3					
09	Technologies for waste treatment and re-use (10 weeks)	DES08						2		2		4
10	Impact studies (10 weeks)	IMPO8						2	2			5
11	Environmental policies (10 weeks)	LEG08						1	1			3
12	Practical activity for the diploma project (4 weeks x22h/week = 88h)	PR08						88				2

13	Development of the diploma project (14 weeks x 4h/week = 56h)	LIC08									4	4
14	Industrial ecology (10 weeks, O8)	EIND08										
	Implementing renewable energy systems (10 weeks, O8)	EPE08						2		2		4
15	Wastes integrated management (10 weeks, O9)	MCM08										
	Ecological management (10 weeks, O9)	MNGEC08						2	2			4
16	Environmental projects management (10 weeks, O10)	PRO08										
	Health and safety management in industry (10 weeks, O10)	INT08						2			2	4
Total			13	3	8	4	30	11	5	4	6	30
Total hours/week			28					26				